

**REMARKS**

Claims 1-12 are currently pending in the present Application, with claims 13-15 standing withdrawn pursuant to Election/Restriction Requirement.

The Applicants wish to thank the Examiner for the withdrawal of the pending § 112 rejection and Title Objection. As to the Information Disclosure Statement issue, the Applicants are submitting herewith a new Form 1449 and an additional copy of the DE 73 24 829 document for Examiner review.

Reconsideration and withdrawal of the pending rejections is respectfully requested in view of the following remarks.

**The Rejection Under § 103 Is Insufficient.**

In the February 11, 2005 Final Office Action, the Examiner maintained the pending rejections of claims 1-10 and 12 as unpatentable over German patent publication DE 24 01 085 A1 (“DE ‘085”) in view of Japanese patent publication 02-217458 (“JP ‘458”) and German patent publication DE 30 42 921 A1 (“DE ‘921”), and of claim 11 as unpatentable over these references in further view of the Metals Handbook reference.

The Applicants respectfully submit that (i) the arguments presented for combining the references fail to satisfy the requirements for establishing a case of obviousness under § 103(a), and (ii) the conclusion of obviousness is inconsistent with secondary indications of non-obviousness, including the fact that no one has attempted to apply a coating in the manner of the present invention, despite a tremendous long-felt need for reduction of costs and simplified production processes in cooking utensil coating applications.

The Office's Burden To Establish Obviousness Has Not Been Meet. The Applicants respectfully submit that the cited references and accompanying arguments for their combination are insufficient to render the pending claims unpatentable, under both § 103(a) and the guidance of the MPEP.

The Administrative Procedure Act requires agency decisions to be based on substantial evidence. MPEP § 2144.03 (citing the Federal Circuit's decision in *In re Gartside*, 203 F.3d 1305, 1315 (Fed. Cir. 2000)). Accordingly, the MPEP notes that “[o]rdinarily, there must be some form of evidence in the record to support an assertion of common knowledge,” and cautions that unsubstantiated reliance on “common knowledge” or “well known” art is only rarely permissible, i.e., only in those cases where the underlying line of reasoning is “clear and unmistakable.” *Id.*

In the present case, the Examiner maintains it would have been obvious to create the present invention's one-step utensil coating process by replacing a prior art two-step thermal coating process (DE '085's application of a mixed oxide-plastic layer to a metal target, followed by application of a separate plastic top-coating) with the DE '921 reference's one-step process. This combination is asserted on the grounds that the DE '921 reference teaches the use of a graduated plastic-oxide coating layer, and that it would have been obvious to reverse the DE '921 coating graduation (from a plastic base to a hard oxide top layer) to the present invention's coating graduation (from an oxide base to an anti-adhesive plastic top layer). Specifically, it is asserted that one of ordinary skill in the art of thermal spraying “would understand” that it is desirable to

provide coating layer which is graded from a substrate material at the layer bottom to a desired top layer material at the layer top, as it is “well known” that such grading “prevents abrupt changes in stress, thermal expansion and elastic modulus between the applied layers,” and therefore it would have been obvious to reverse the DE ‘921 plastic-to-oxide coating and apply an oxide-to-plastic coating to the DE ‘085 metal substrate (*i.e.*, to completely substitute the DE ‘921 process for the DE ‘085 two-step, separate top-layer coating process when coating the DE ‘085 metal target). Response to Arguments, February 11, 2005 Final Office Action at 8.

The Applicants respectfully submit that not only are the asserted “understandings” or “knowledge” in the art lacking in evidentiary support, the assertions do not follow a line of reasoning which is “clear and unmistakable.” Accordingly, the pending rejections cannot be sustained under § 103(a).

The mere fact that the DE ‘921 reference teaches a graduated coating from a substrate material to a desired top surface material does not provide a “clear and unmistakable” line of reasoning for entirely replacing the DE ‘085 two-step coating process with a single-step coating. Rather, the physical principles underlying the two different approaches to coating application in the DE references are inconsistent with one another – hardly the “clear and unmistakable” line of reasoning required to support unsubstantiated assertions.

The DE ‘085 reference teaches application of a high-temperature mixed oxide-plastic coating to a *highly-heat conductive* target, and then – *after* sufficient heat has been conducted away to prevent damage to the plastic top

coating – applying the desired highly anti-adhesive plastic layer over the mixed oxide-plastic layer. In contrast, rather than teaching heat conduction *away* from the coating top surface, the DE '921 reference teaches use of varying plastic-oxide fractions in order to *insulate* the vulnerable plastic target substrate from the high-temperature oxide coating material, at least until a sufficiently thick base layer of plastic material is formed to limit heat transfer into the target substrate – the exact opposite of the thermal principles employed in DE '085. This reference further teaches because the oxide top layer is highly heat-tolerant, conduction of heat away from the top surface is not required to protect the top surface material, and therefore there is no need for a separate, final top coating to achieve DE '921's desired anti-abrasive oxide surface.

In this context, there is no “clear and unmistakable” line of reasoning between the DE '085 reference’s teaching conduction of heat *away* from the top layer to protect the top layer plastic, and DE '921’s *heat-retaining* graduated coating process (a process which would provide a plastic-based coating which would not satisfactorily adhere to a DE '085 high temperature utensil substrate). In particular, the unsupported assertion that one of ordinary skill would “understand” that “it is desirable to provide the grading to progress [from the base material to the top material]” fails precisely because there is no “unmistakable” basis for the broad assertion that reversing the plastic-oxide coating graduation would still provide satisfactory results, *i.e.*, that there is any reason to believe that the DE '085 two-step process, which protects its plastic top layer from excessive heating, could be readily replaced by DE '921’s one-step

application of a graduated layer – *whether the graduation was from oxide-to-plastic or from plastic-to-oxide*. For example, in the absence of knowledge of the present invention, it would not be “clear and unmistakable” to one of ordinary skill that there would be adequate time for conduction of damaging heat away from the desired plastic top layer of the present invention if a graduated coating (in *either* direction) was applied in one step to the DE ‘085 utensil. Indeed, based on the evidence of record, the only suggestion of a successful one-step graduated coating application is in the present specification – a document obviously not available to one of ordinary skill (except in an impermissible hindsight analysis).

Finally, the Applicants note that the bare assertion that it would have been “understood” that providing a graduated coating of the type in the present invention is strongly rebutted by secondary indications of non-obviousness. In the market for production and sale of plastic-coated (*e.g.*, Teflon) cooking utensils, there is constant, extraordinarily-intense pressure to reduce costs and increase production efficiency. Thus, there has been a long-felt need to provide a highly abrasion-resistant, highly anti-adhesive surface at ever-lower cost and with simplified processes. Yet, despite this powerful motivation to investigate and develop new processes and/or process improvements, the assertedly “obvious” present invention does not appear in the prior art – certainly, nothing in the present record suggests anyone has attempted to apply a coating in the manner of the present invention.

In light of this strong indication that it was not obvious to develop a one-step, highly abrasion-resistant anti-adhesive coating as recited in present

claim 1, the Applicants respectfully submit that the unsupported assertions of understanding and common knowledge in the art are insufficient to support the pending § 103(a) rejections.

**CONCLUSION**

In view of the foregoing remarks, the Applicants respectfully submit that claims 1-12 are patentable under § 103(a) and are in condition for allowance. Early and favorable consideration, withdrawal of the finality of the pending Office Action, and issuance of a Notice of Allowance for these claims is respectfully requested.

If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #038724.52851US).

Respectfully submitted,

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